



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

RBW109-3101-58-1-3

Job Sheet 169093



Part No: RBW109-3101-58-1-3

Job Qty: 1 ea

Part Name: Hammer Head



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 11/30/17

Job Tracking No:

Due Date: 12/4/17

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG RBW109-3101-58-1 Rev3 IPP Rev A 17.11.28 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea		12/2/17	0.00	0.00	Start Up Machining-4		
120	Mori Seiki	1 pcs		12/4/17	0.00	1.00	MORI SL-154		
130	QC	1 pcs		12/4/17	0.00	0.00	QC8 Machining-5		FK 17-12-2
140	QC	1 pcs		12/4/17	0.00	0.00			DAS 38
145	QC	1 pcs		12/4/17	0.00	0.00	QC5		38
150	Outsource	1 pcs		12/4/17	0.00	0.00	Outsource13		Chaf 22-12-17
160	Packaging	1 pcs		12/4/17	0.00	0.00	Packaging2		Chaf 22-12-17
170	QC	1 pcs		12/4/17	0.00	0.00	QC6		38
180	Packaging	1 pcs		12/4/17	0.00	0.00			AT 1/1/18
190	QC21-SA	1 Ea		12/4/17	0.00	0.00			Chaf

Part Op 120 - 1-Machine as per folio FB685 FOLIO REV: _____ DWG REV: _____ 2-Deburr

Descriptions: 150 - Issue P/O to Groupe Altech: P/O D386567 -Zinc plate, ASTM B633 TYPE 1 SC2 -Certificate of Conformity is required

180 - Identify and Stock

DEC 06 2017

Job Allocations

Operation	Component Part	Required	Inventory	Allocated	Std Qty
90-Start up Operation	M1018R0.500	0	12	0	0

Part Specifications

Specifications could not be found.

Plex 11/30/17 1:30 PM Dart.lajeunesse.marie

SO 13 212

9"

27"

DART AEROSPACE

S016539

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
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Email: sales@dartaero.com
www.dartaerospace.com



UPDATE

Work Order update only ☐

AGAINST DEPARTMENT/PROCESS

Cross tube
Small Fab
Finishing
Composite

Water Jet
Prod. Eng. Coord.
Rec/Store/Packaging
Supplier

Engineering
Quality
Other

e :

MRB (QSI042) Approval

Disposition

Completed By

Lead hand / Supervisor
Approval Verification

Hammer Head

PART NO: RBW109-3101-58-1-3
Revision:
Operation: Start up Operation
Change No:

Mfg Date: 12/01/17
Job No: 169093

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Root Cause

Environment	☐	No Re-verification	☐	Pressure/Forced	☐
Design	☐	Operator	☐	Bending	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/W	☐
Material	☐	Use for Testing	☐	Cuffs	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐
Past Expiry Date	☐	Manufacturing Process	☐		
Misidentified	☐	Past Due	☐	OTHER :	☐

Hammer Head

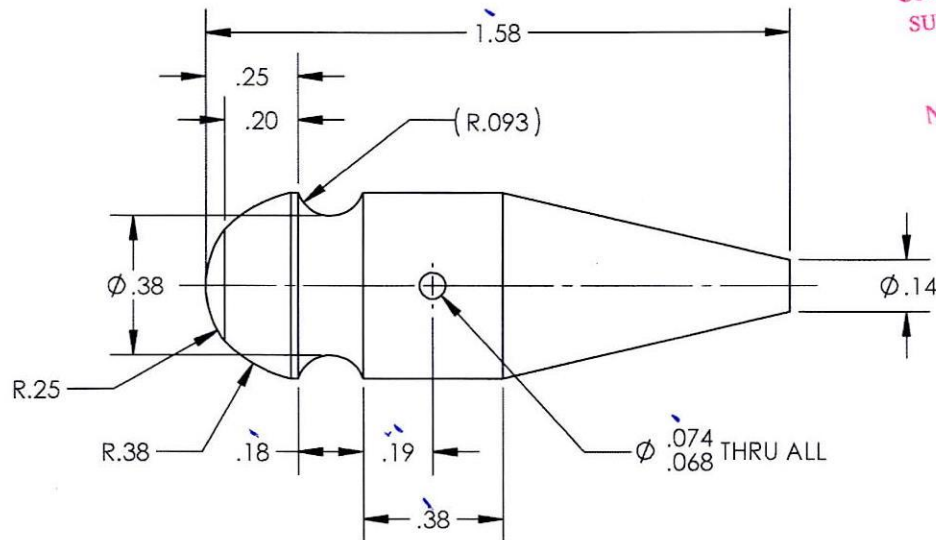
PART NO:
Revision:
Operation:
Change No:

RBW109-3101-58-1-3
Outsource

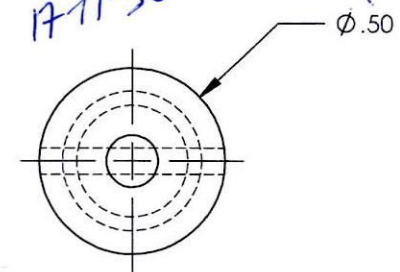
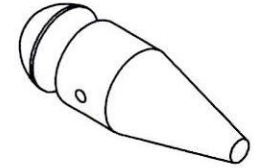
Mfg Date: 12/01/17
Job No: 169093

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REVISIONS				DATE	INITIAL	APPROVED
REV	ECR	DESCRIPTION				
2	16-0212	-3 CH'D FINISH WAS CAD PLATE YELLOW IS ZINC PLATE ASTM B633 TYPE I SC 2, CH'D MATERIAL WAS 1018/1020 IS 1018/1020 CR.			11/4/2016	RJC JAG



SHOP COPY
RETURN TO
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UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 169000 MJS
1711-30



(-3)
HAMMER HEAD

DART AEROSPACE	
TITLE HAMMER, STEEL, BLADE CORROSION AND VOIDS DETECTION	
DWG NO. RBW109-3101-58-1-3	REV 3
MAT'L 1018/1020 CR	UNLESS OTHERWISE SPECIFIED
HEAT TREAT	DIMENSIONS ARE IN INCHES
FINISH ZINC PLATE	.XXX ± .005 FRACTIONS ± 1/8
	.XX ± .01 ANGLES ± 5°
	.X ± .1 SURFACES = 125/
SPEC ASTM B633 TYPE I SC 2	1. BREAK ALL SHARP EDGES .015 x 45° OR .015R
DRAWN BY: DUERFELDT	2. DIMENSIONAL LIMITS APPLY AFTER PLATING
CHECKED: DUERFELDT	3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009
OPPS APPR: ANDERSON	
QA APPR: LINDSAY	USED ON MODEL
APPROVED: GILBERT	AW109/AW119
SCALE 2:1	DATE 3/12/2015 SHEET 3 OF 5

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					



Dart Aerospace Ltd.
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Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO038567**

Supplier: GRO002-VC
Group Altech
2455 Halpern
St Laurent
QC
H4S 1N9 Canada
Phone: 514-335-3666
Fax: 514-335-3868

PO No: PO038567

PO Date: 12/5/17

Due Date: 12/13/17

**Purchase Order
Revision:**

Revision Date:

Ship-To Contact: Baker, Diane
Phone: dbaker@dartaero.com

REVISED
\$

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground

Pymt Terms: Net 30

Freight Terms:

Special Comments:

Items

Line Item	Job	Part	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	167622	SK145-0115-20	Clamp Bar ISSUE P/O: <i>already used</i> PASSIVATE AS PER DWG ACCORDANCE WITH ASTM A967 C OF C IS REQUIRED	Firmed	12/8/17	8 pcs	0 pcs	8 pcs	\$0.01/pcs	\$0.08
2	163807	647.7703	Strut Assembly Issue P/O : CAD PLATE IAW QQ-P-416F CLASS I TYPE II note: cad plate should not be too thick around tread	Firmed	12/13/17	15 pcs	0 pcs	15 pcs	\$11.66666/pcs	\$175.00
3	169093	RBW109-3101-58-1-3	Hammer Head -Issue P/O to Groupe Altech: P/O -Zinc plate, ASTM B633 TYPE 1 SC2 -Certificate of Conformity is required	Firmed	12/13/17	1 pcs	0 pcs	1 pcs	\$90.00/pcs	\$90.00

14x 22-12-17 m

1x 22-12-17 m

Grand Total: \$265.08

Order Notes

CL



Certificat de Conformité / Certificate of Compliance

(005107-2)

2455, Rue Halpern | Saint-Laurent | Québec | H4S 1N9
 Tel: 514-335-3666 Fax: 514-335-3868
 www.groupaltech.com

Bon de Livraison / Packing Slip

005107- 2

Livré à / Ship to

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 Tel.: 613-632-5200 Fax.:

Client / Customer:

DART AEROSPACE LTD
 1270 ABERDEEN STREET
 HAWKESBURY, ON, K6A1K7
 CANADA
 BUYER:

Date expédition Ship date		Créé Par Generated By	Transport / No de Compte Courier / Acc. No.	Bon de commande Client Customer Purchase Order No.				
18-Dec-2017		SHIPPING DEPT.		038567				
#Ligne Line#	No. de Série / # Pièce Part Number /Line Item Details Job # / Ref #	Description pièce(s)	CATG. U/M	Comm. /Ordered	Exp/ Shipped	Qté NC/ NC Qty	Qté Scrap/	À venir/ Back Order
2	647.7703 Rev.	647.7703 01 -CAD YELLOW 500 [CADMIUM YELLOW 500]	CADMIUM CH	14	14	0	0	0
3	RBW109-3101-58-1-3 Rev.	RBW109-3101-58-1-3 01 -ZINC [ZINC] SPÉC: ASTM B633 TYPE 1, SC2 *** SPÉC: CONFORMITY IS REQ. ***	ZINC CH	1	1	0	0	0

Notes Additionnelles / Additional Notes

Epaisseur réelle
Actual Thickness

Inspecteur Qualité
Quality Inspector

Réçu par
Received By

Nous certifions que les pièces énumérées ci-dessus ont été traitées en conformité avec votre commande et vos spécifications et rencontrent les exigences.
 Notre responsabilité financière et légale ne sera pas supérieure au montant de la facture issue.

We hereby certify that the parts listed above have been process in accordance with your purchase order and specifications and are in conformance with your requirements.
 Our financial and legal responsibility will not be higher than the amount of invoice.